

BUSINESS MATHEMATICS I

1	Course Title:	BUSINESS MATHEMATICS I
2	Course Code:	ISL1401
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	1
6	Semester:	1
7	ECTS Credits Allocated:	5.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Doç. Dr. GÜL EMEL
15	Course Lecturers:	Doç. Dr. Gül EMEL Yar.Doç.Dr.Burcu AVCI ÖZTÜRK
16	Contact information of the Course Coordinator:	ggokay@uludag.edu.tr Tel: 0224 29 41055
17	Website:	
18	Objective of the Course:	To provide students with basic knowledge of Business Mathematics, to develop their ability to apply the knowledge to special business cases and to evaluate the solutions of the problems carefully.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	To be able to know basic mathematical rules.
	2	To be able to comprehend the importance of the math for the business.
	3	To be able to state the business related problems with equations.
	4	To be able to express the concepts like revenue, cost and profit mathematically.
	5	To be able to calculate simple and compound interests
	6	To be able to analyze the details of the mathematical model of the problem with limit and derivative rules
	7	To be able to synthesise the outcome data
	8	To be able to interpret the solutions and evaluate the mathematical models
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21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	Linear equations, linear functions and their graphs	
2	Linear inequalities and their graphs	

3	Cost, revenue and profit functions and breakeven point computation	
4	Polynomial nonlinear functions	
5	Logarithmic and exponential functions	
6	Business applications of nonlinear functions	
7	Sequences and series (Midterm Exam)	
8	Interest calculations and applications	
9	Limits and contingency	
10	Description of the derivatives, rate of change, rules of derivatives.	
11	Derivatives of implicit functions, logarithmic functions and functions of which exponent is a function, high order derivatives.	
12	Derivatives, continuity, differential, indefinite forms and L'hospital rule.	
13	Increasing and decreasing functions, extreme and turning points and drawing curves.	
14	Max. profit, min cost calculations and business examples	

22	Textbooks, References and/or Other Materials:	<p>* Mustafa Aytaç, Mustafa Sevüktekin, Erkan Işığışok, Sosyal Bilimlerde Matematik, Ezgi Kitabevi, Bursa, 2010.</p> <p>* Mustafa Sevüktekin, Zehra Başkaya, Matematiksel Analiz: İşletme ve Ekonomi Uygulamaları, Dora Yayıncılık, Bursa, 2010.</p> <p>* Bülent Kobu, İşletme Matematiği, Beta Yayınevi, İstanbul, 2008.</p> <p>* Ahmet Öztürk, Matematiksel Analize Giriş, Ekin Kitabevi, Bursa, 1993.</p>
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23	Assesment	
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TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Midterm Exam	1	40.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	60.00
Total	2	100.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00
Contribution of Final Exam to Success Grade		60.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		

24	ECTS / WORK LOAD TABLE
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Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	4.00	56.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	25.00	25.00
Others	0	0.00	0.00
Final Exams	1	30.00	30.00
Total Work Load			178.00
Total work load/ 30 hr			5.10
ECTS Credit of the Course			5.00

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	3	5	2	3	0	4	5	2	5	4	1	0	0	0	0	0
ÖK2	3	5	2	3	0	4	5	2	5	4	1	0	0	0	0	0
ÖK3	3	5	2	3	0	4	5	1	5	4	1	0	0	0	0	0
ÖK4	3	5	2	2	0	4	5	2	5	3	1	0	0	0	0	0
ÖK5	2	4	2	3	0	5	5	1	5	2	1	0	0	0	0	0
ÖK6	1	5	2	1	0	2	3	2	5	3	1	0	0	0	0	0
ÖK7	3	4	2	2	0	4	3	3	5	4	1	0	0	0	0	0
ÖK8	3	5	3	2	0	3	4	3	5	4	1	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			